

SVETLANA TECHNICAL DATA

SV6550C

High Performance Audio Beam Power Pentode

The Svetlana™ SV6550C is a glass envelope beam power pentode. It is intended for ultra linear audio frequency power amplification service. Close manufacturing specification tolerances and improved processing provide improved reliability and superior sonic performance. The new SV6550C features: increased peak cathode emission from new cathode materials; stable operation from extended processing and aging; gold-plated grid; new tri-plate anode; single-piece beam forming electrode; precise grid/screen alignment; improved vacuum processing; and comprehensive static and audio amplifier testing before and after aging.

The Svetlana SV6550C is manufactured in the Svetlana factory in St. Petersburg, Russia, and is designed to be a direct replacement for any 6550.

Characteristics

Electrical

Heater:	Min.	Nom.	Max.	
Voltage (AC or DC)	5.7	6.3	6.9	V
Current		1.6		A
Cathode:		Oxide-coated, unipotential		
Cathode-to-heater potential, max.			-300*/200**	V
Direct interelectrode capacitances, max.***				
Grid no.1 to cathode and grid no.3, grid no.2,				
base sleeve and heater			18.5	pF
Plate to cathode and grid no.3, grid no.2,				
base sleeve and heater			12.5	pF
Grid no.1 to plate (max)			1.1	pF

Mechanical

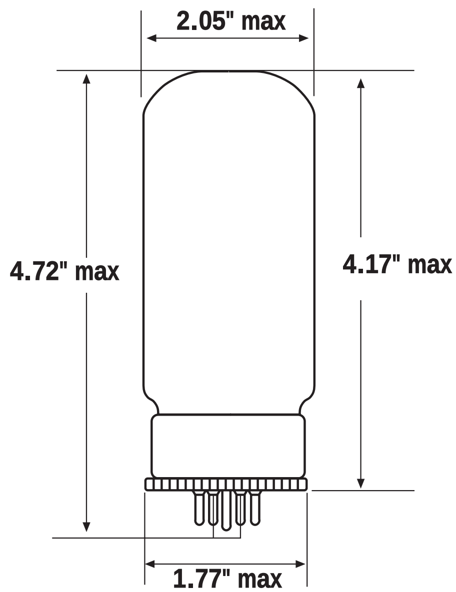
Operating Position	Any
Base	Large wafer octal 8-pin with metal sleeve
Maximum dimensions:	
Height	116 mm (4.57 in.)
Seated height	106 mm (4.173 in.)
Diameter	46 mm (1.81 in.)
Cooling	Convection cooled
Envelope Temperature (max)	250˚C
Approximate net weight	100 g (3.5 oz.)

AF Power Amplifier, Maximum ratings

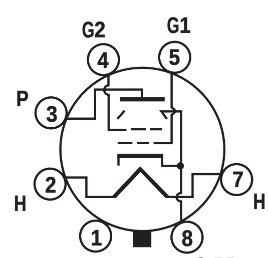
DC plate voltage	680	V
Grid no.2 DC (screen) voltage	400	V
Grid no.1 (control) voltage	-300	V
DC cathode current	175	mA
Plate dissipation	35	W
Grid no.2 (screen) dissipation	6	W

*Max with heater negative to cathode
**Max with heater positive to cathode
***Without external shielding

Svetlana Outline drawing



Bottom View



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Typical Operation Class A_1 (single tube)

DC plate voltage	*400*	*V*
Grid no.2 DC (screen) voltage	*225*	*V*
Grid no.1 DC (control) voltage	*-22*	*V*
Peak AF grid no.1 (control) voltage	*22*	*V*
Zero-signal plate current	*87*	*mA*
Max signal plate current	*105*	*mA*
Zero signal grid no.2 (screen) current	*4*	*mAdc*
Max signal grid no.2 (screen) current	*18*	*mA*
Transconductance (nominal)	*9500*	*µS*
Load resistance	*3000*	*ohms*
Signal output at 5% distortion	*12*	*W*

